

WHAT IS CLAIMED IS:

1. A method for reducing the number of calculations required to correlate an incoming spread spectrum signal encoded with a pseudorandom code, comprising:

5 determining, for the spread spectrum signal, mathematical processes that are repeated in a correlation process;

removing at least a portion of the mathematical processes that are repeated in the correlation process;

storing the remaining mathematical processes in a table;

10 using the table during the correlation process to determine when a locally generated pseudorandom code and the incoming pseudorandom code are correlated.

2. The method of claim 1, wherein the mathematical processes are partial accumulations.

15 3. The method of claim 2, wherein a portion of the locally generated code and a portion of the incoming pseudorandom code are used to determine correlation of the locally generated code and the incoming pseudorandom code.

20 4. The method of claim 3, wherein the incoming spread spectrum signal is a Satellite Positioning System (SATPS) signal.

5. The method of claim 4, wherein the SATPS signal is a Global Positioning System (GPS) signal.

6. The method of claim 5, wherein the table is addressed using at least one data bit of the GPS signal and at least one associated code bit of the GPS signal.

7. The method of claim 6, wherein the at least one associated code bit is at least four associated code bits, and the at least one data bit is at least four data bytes.

8. The method of claim 7, wherein the data bytes are represented by In-phase (I) and Quadrature phase (Q) forms.

9. A spread spectrum receiver, comprising:
means for determining, for an expected incoming spread spectrum signal, mathematical processes that are repeated in a correlation process;
means for storing at least that portion of the mathematical processes that are not repeated in the correlation process in a table, wherein at least a portion of the mathematical processes that are repeated in the correlation process are not stored in the table;
means for using the table during the correlation process to determine when a locally generated pseudorandom code and the incoming pseudorandom code are correlated.

10. The spread spectrum receiver of claim 9, wherein the mathematical processes are partial accumulations.

11. The spread spectrum receiver of claim 10, wherein a portion of the locally generated code and a portion of the incoming pseudorandom code are used to determine correlation of the locally generated code and the incoming pseudorandom code.

12. The spread spectrum receiver of claim 11, wherein the incoming spread spectrum signal is a Satellite Positioning System (SATPS) signal.

13. The spread spectrum receiver of claim 12, wherein the SATPS signal is a Global Positioning System (GPS) signal.

14. The spread spectrum receiver of claim 13, wherein the table is addressed using at least one data bit of the GPS signal and at least one associated code bit of the GPS signal.

15. The spread spectrum receiver of claim 14, wherein the at least one associated code bit is at least four associated code bits, and the at least one data bit is at least four data bytes.

16. The spread spectrum receiver of claim 15, wherein the data bytes are represented by In-phase (I) and Quadrature phase (Q) forms.